

THE SPIDER GENUS SEMIOPYLA (ARANEAE: SALTICIDAE)¹

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Among the characteristic faunal elements of lowland tropical areas of South and Central America are minute jumping spiders of several genera, apparently related to the more familiar genera *Chalcoscirtus* and *Neon* of the holarctic region. Almost nothing of their biology is known, other than that found on collecting data, which seems to indicate that these spiders live in litter and duff.

Semiopyla was described by Eugene Simon in 1901, from two Venezuelan species, *S. biimpresa* known only from females, and *S. cataphracta*, known only from male specimens. Since the original description, the genus has not been mentioned again except in the usual catalogs, and in Galiano's (1963) redescriptions of Simon's salticid species from South America. After examining specimens in the collections of the American Museum of Natural History, New York, and the Museum of Comparative Zoology, Harvard University, I am convinced that *S. biimpresa* is the female of *S. cataphracta*, and that *Semiopyla* is a monotypic genus.

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The family Salticidae is plagued with a large number of monotypic genera, many known from few specimens and one sex. This is especially true of the tropical salticids. The usefulness of this type of classification may be questioned, but it is impossible to place many of these species into existing genera without a ludicrous stretching of the limits of genera. Furthermore, because of the simple male palpi and numerous adaptive convergences (ant resemblance, beetle resemblance, raptorial front legs, etc.) many seemingly closely related species are actually unrelated. Under this set of circumstances, lumping of tropical genera into better known temperate genera is of dubious value.

Semiopyla Simon

Semiopyla Simon, 1901, Histoire Naturelle des Araignées. Vol. 2 (3): p. 577. Type species by original designation, *Semiopyla cataphracta* Simon.

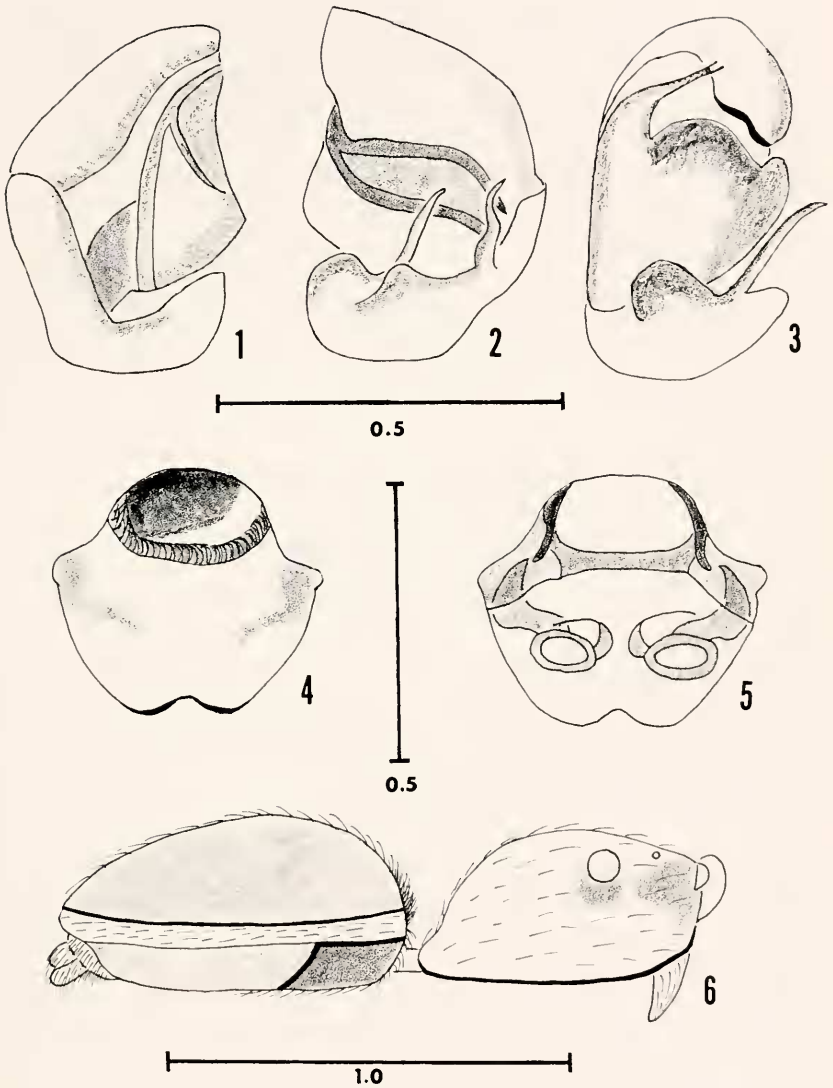
Description: Very small salticid spiders, 1.6—2.4 mm total length. Carapace longer than wide. Cervical groove absent. Height of clypeus about one-third diameter of anterior median eye. Anterior eyerow recurved, as seen from above. Eyes of third row equal to, or slightly larger than lateral eyes of first row. Chelicerae small, without teeth. Leg order 4132. Trochanteral limuli rounded. Abdomen ovate; male with scutum covering dorsum, and another covering the anterior quarter of the venter. Females lack scuta, except as book lung covers.

Epigynum large, width one-third width of venter, sclerotized, with a large, prominent anterior opening.

Palpal tibia of male with two apophyses. Cymbium small. Bulb large. Embolus split at tip.

Diagnosis: *Semiopyla* is best distinguished from related genera by genitalic characters, the prominent anterior epigynal opening (Fig. 4) distinguishing the female, and the characteristic palpus distinguishing the male.

The bifid embolus of *Semiopyla* (Fig. 3) is unique among the genera clustering around *Neon* and *Neonella*. Bifid emboli occur infrequently in the Salticidae. The only examples known to me from the nearctic fauna are in the genus *Metaphidippus*. Thus, this character is the most striking morphological feature in the male palpus of *Semiopyla*.



FIGS. 1—6. *Semiopyla cataphracta* Simon. Figs. 1—3. Left male palpus. 1. Prolateral view. 2. Retrolateral view. 3. Ventral view. Figs. 4—5. Epigynum. 4. External view. 5. Internal view. Fig. 6. Right side of male, legs and palpi removed. Scale in mm.



MAP 1. Distribution of *Semiopyla cataphracta* Simon.

Semiopyla cataphracta Simon

(Figs. 1—6. Map 1.)

Semiopyla cataphracta Simon, 1901, Hist. Nat. des Araignées. Vol. 2 (3): 573, 575, 577, figs. 692—694, male. Male lectotype from Venezuela, Caracas³ in the Muséum National d'Histoire Naturelle, Paris, designated by Galiano, 1963, not examined.

Bonnet, 1958, Bibl. Araneorum, vol. 2(4): 4025.

Galiano, 1963, Physis, vol. 23: 443, pl. 34, fig. 8—12, male.

Semiopyla biimpressa Simon, 1901, Hist. Nat. des Araignées, vol. 2(3): 574, 575. Female lectotype from Venezuela, Valencia, San Esteban³ in the Muséum National d'Histoire Naturelle, Paris, designated by Galiano 1963, not examined.

Bonnet, 1958, Bibl. Araneorum, vol. 2(4): 4025.

Galiano, 1963, Physis 23: 442, pl. 34, fig. 6, female, NEW SYNONYMY.

Description: The measurements and coloration of two average specimens are given below. Both were collected May 25—26, 1964 by Dr. A. M. Chickering at Carozal, Panama Canal Zone.

Male, total length 1.70 mm, carapace 0.91 mm long, 0.66 mm wide. Range of carapace length for 15 specimens 0.77—1.02. Abdomen 0.94 mm long, 0.69

³See Levi (1964) for details.

mm wide. Height of carapace at third eyerow, 0.45. Lateral eyes of row I and eyes of row III little more than half the diameter of median eyes of row I. Eyerow II separated from eyerow I by slightly less than diameter of median eye. Eyerow II separated from eyerow III by slightly more than half the diameter of median eye. The leg spination is complex. The more obvious spines are three dorsal spines on all femora. Metatarsi I and II have two pair of ventral spines, tibia I has three pair of ventral spines, tibia II has a ventral distal and proximal spine on the prolateral side. These spines are long relative to the leg segments each being at least twice the diameter of the segment. Length of leg IV: femur 0.59, patella 0.25, tibia 0.49, metatarsus 0.42, tarsus 0.38, total 2.09. Patella III, 0.24; tibia III, 0.22. Patella II, 0.24; tibia II, 0.22. Patella I, 0.28; tibia I, 0.36.

Carapace chestnut-brown, black patches around eyes. Chelicerae brownish yellow. Palpi dark brown. Leg I all white with prolateral brown stripe on femur, patella, tibia, and metatarsus. Leg II and III are the same as leg I with the stripe irregularly broken. Leg IV light brown with brown stripes on prolateral and retrolateral sides of all segments except tarsus. Scutum of abdomen orange. Three pairs of pale spots border midline of posterior two-thirds of abdomen. Venter gray-brown.

Female, total length 2.25 mm, carapace 0.98 mm long, 0.67 mm wide. Range of carapace length for 15 specimens 0.90—1.11. Abdomen 1.40 mm long, 0.98 mm wide. Height of carapace at third eyerow, 0.46. Lateral eyes of row I and eyes of row II half the diameter of median eyes of row I. Eyerow II separated from eyerow I by the diameter of median eye. Eyerow II separated from eyerow III by slightly more than half the diameter of median eye. Leg spination as in male. Length of leg IV: femur 0.48, patella 0.32, tibia 0.48, metatarsus 0.43, tarsus 0.31, total 1.97. Patella III, 0.24; tibia III, 0.28. Patella II, 0.25; tibia II, 0.27. Patella I, 0.32; tibia I, 0.38.

Carapace coloration as in male. Chelicerae yellow, with light brown vertical stripe on anterior face. Palpi light brown. Leg I with tarsus clear yellow, other segments brown. Legs II, III and IV brownish yellow. Dorsum of abdomen grayish brown with three pair of pale spots bordering the midline of the posterior two-thirds of abdomen. Venter grayish brown.

Distribution and habits: Presumably the species occurs in any low-land tropical area from Venezuela to southern Mexico (Map 1). Although there are six Canal Zone collecting sites, all are in the southern half of the zone. Adults have been collected throughout the year.

Records: MEXICO: *Chiapas:* Tuxtla Gutierrez, (J. W. Ivie). *Campeche:* (C. Goodnight). In AMNH. PANAMA CANAL ZONE: numerous specimens from many localities (A. M. Chickering). In MCZ.

LITERATURE CITED

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Semiopyla Simon, 1901 is redescribed and the two species previously placed in it are considered here as one species. Despite the large number of monotypic tropical salticid genera, and the problems attendant on such classification, it is felt that it would only confuse matters to lump such genera into better known genera from the temperate areas.—BRUCE CUTLER, Department of Entomology, Fisheries, and Wildlife, University of Minnesota, St. Paul, MN 55101.

Descriptors: Arachnida; Araneae; Salticidae; *Semiopyla*, revision; monotypic salticid genera; spiders.